

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW CONTROLLER AND HALF SIGNAL AT THE INTERSECTION OF MD 4 AT MD 262 IN CALVERT COUNTY. MD 4 IS ASSUMED TO RUN IN A NORTH/SOUTH DIRECTION.

INTERSECTION OPERATION

NORMAL OPERATION
THE INTERSECTION WILL OPERATE IN A NEMA-THREE-PHASE SEMI-ACTUATED MODE. THE MOVEMENTS ON MD 4 WILL OPERATE CONCURRENTLY. THE MOVEMENTS ON MD 262 WILL OPERATE CONCURRENTLY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, SOLID STATE EIGHT PHASE CONTROLLER WITH SYSTEM PACKAGE, VIDEO DETECTOR RACK, TELEMETRY MODULE, ISOLATION BOARD AND SPECIAL RELAY HOUSED IN NEMA SIZE #6" BASE MOUNTED CABINET.

SPECIAL NOTE

ALL UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE BECAUSE THESE UTILITIES MAY BE MODIFIED PRIOR TO AND DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER IMMEDIATELY.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA

CAT CODE NUMBER	SPEC. SECTION	QUANTITY	DESCRIPTION
971017	816	1 EA.	EIGHT PHASE FULL TRAFFIC ACTUATED SOLID STATE DIGITAL CONTROLLER WITH SYSTEM PACKAGE, HOUSED IN A NEMA SIZE #6" BASE MOUNTED CABINET

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

CAT CODE NUMBER	SPEC. SECTION	QUANTITY	DESCRIPTION
585624	556	50 L.F.	24 IN. HEAT APPLIED THERMOPLASTIC WHITE PAVEMENT MARKING
△ 801605	813	53 S.F.	SHEET ALUMINUM SIGN
△ 805135	805	15 L.F.	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-TRENCHED
805140	805	421 L.F.	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-TRENCHED
△ 805155	805	103 L.F.	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-SLOTTED
805160	805	40 L.F.	1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT
△ 807400	807	1 EA.	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS
810010	810	45 L.F.	ELECTRICAL CABLE 1-CONDUCTOR (NO. 4 AWG)
811001	811	2 EA.	ELECTRICAL HANDHOLE
813006	813	15 S.F.	RELOCATE EXISTING SIGN
△ 813014	813	30 S.F.	INSTALL GROUND MOUNTED SIGN
813015	813	23 S.F.	INSTALL OVERHEAD SIGN
818010	818	1 EA.	14 FT. BREAKAWAY PEDESTAL POLE
822002	805	400 L.F.	12-PAIR COMMUNICATION CABLE, JELLYFILLED (NO. 19 AWG)
837001	804	2 EA.	GROUND ROD 3/4 IN. X 10 FT. LENGTH
860272	814	21 EA.	12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861104	810	280 L.F.	ELECTRICAL CABLE 2-CONDUCTOR (ALUMINUM SHIELDED NO. 14 AWG)
861107	810	90 L.F.	ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 AWG)
△ 861108	810	1280 L.F.	ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 AWG)
862101	805	480 L.F.	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
862102	805	144 L.F.	SAW CUT FOR LOOP WIRE
871117	816	1 EA.	INSTALL CABINET AND CONTROLLER - BASE MOUNT
800000	XXX	1 LS.	REMOVE AND DISPOSE OF EXISTING SIGNAL MATERIAL

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #5 ARE AS FOLLOWS:

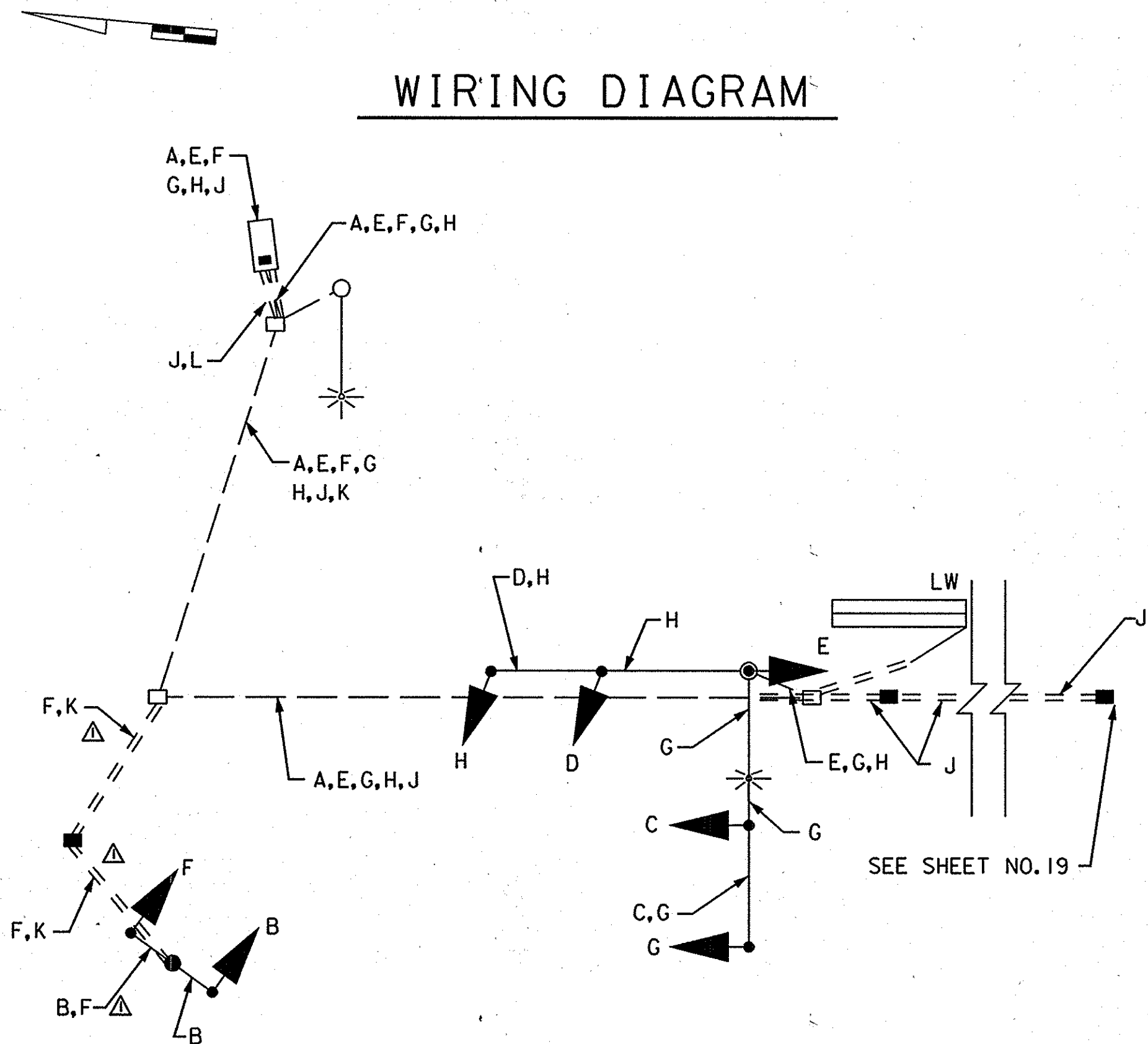
MARK COBLENTZ
ASSISTANT DISTRICT ENGINEER-CONSTRUCTION
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△ KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: 410-841-1003

CHARLES GEORGE
ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: 410-841-1002

JOHN MAYS
UTILITIES ENGINEER
PHONE: 410-841-1005

WIRING DIAGRAM



- | | | | |
|---------|---|------|---|
| A | ELECTRICAL CABLE 2-CONDUCTOR (ALUMINUM SHIELDED NO. 14 AWG) | J | 12-PAIR COMMUNICATION CABLE, JELLYFILLED (NO. 19 AWG) |
| B, C, D | ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 AWG) | K, L | NO. 6 AWG STRANDED BARE COPPER GROUND WIRE |
| E, F | ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 AWG) | LW | LOOP WIRE |

PHASE CHART

1	2	3	4	5	6	7
(R)	(R)	(R)	(R)	(R)	(R)	(R)
(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
(G)	(G)	(G)	(G)	(G)	(G)	(G)

PHASE 1	G	G	G	R	R	R	R	
1 CHANGE	Y	Y	Y	R	R	R	R	→
PHASE 2	R	R	R	G	G	R	R	→
2 CHANGE	R	R	R	Y	Y	R	R	→
PHASE 3	R	R	R	R	R	G	G	→
3 CHANGE	R	R	R	R	Y	Y		→
FLASHING OPERATION	FL	FL	FL	FL	FL	FL	FL	→

EQUIPMENT LIST "C"

C. ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR.

△ ADDENDUM NO. 1 2/10/03



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET
MD 4/ MD 2/ MD 262
GEOMETRIC IMPROVEMENTS

DRAWN BY: MB	F.A.P. NO. SEE TITLE SHEET	TS NO. 3548A-2	SHEET NO. 17 OF 21
CHECKED BY: PDU	S.H.A. NO. AW-793-585		
SCALE: NONE	COUNTY: CALVERT	T.I.M.S. NO.	
DATE: DECEMBER 2002	LOG MILE:		

THE WILSON T. BALLARD CO.
CONSULTING ENGINEERS
OWINGS MILLS, MARYLAND